

Date: Tue, 2 Aug 94 04:30:22 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #245
To: Ham-Ant

Ham-Ant Digest Tue, 2 Aug 94 Volume 94 : Issue 245

Today's Topics:

20m dipole problems HELP
2m antenna on VW Golf/GTi, where?
Best HF mobile antenna?? (3 msgs)
Comet CA-350DB
Hygain Hytower-2
JPole fundamentals
New
Q:SW car antenna?
Question: Powerlines surrounding Antenna
Trade hf 5 band verticle 4 yaesu ft11r
What coax feed to use for 2m antenna (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sun, 31 Jul 1994 08:33:50 GMT
From: lll-winken.llnl.gov!uwm.edu!news.alpha.net!mvp.saic.com!eskimo!
levi@ames.arpa
Subject: 20m dipole problems HELP
To: ham-ant@ucsd.edu

<6e.1438.719.0N666787@cencore.com>
<1994Jul29.141840.16660@VFL.Paramax.COM>

Regulations require power companies to fix any emissions they produce.
I have had this happen in the past, and the first time they came right

out and traced the problem. The funny thing about this is that it was not their equipt. that was causing the rfi. It was traced to a house two doors away and a faulty fish tank heater!!

The second time I called them was in a different location. Everything was great when I first moved in. It was winter and it was raining alot. Then, when things started drying out, the noise started. 30 over S9 at times. I traced it myself using a portable am radio to what I thought was a power pole about 50 yards from my house. I comfirmed it was this pole by pushing on it, and the static burst were in perfect timing with the movment of the wires up top. I called them, and they came out, said they could find nothing wrong. Of course I was not there to show them. I called them back, and said "I know where the problem is". They came out again and I showed them the trouble pole. The guy climbed up it, looked at it for a few moments. Came back down and said "there nothing wrong". I told him that thee was and that he should fix it. He said "Sorry, but I dont have to do that!". I called the FCC and they came out a few days later. I showed them what was going on, and within 2 weeks, not only was the power company there fixing the static problem. But the cable company was also there fixing leaks in their lines that was allowing me into peoples tv's from 2 meters.

So, this goes to show that "YES THE WILL FIX IT, THEY HAVE TO!" (quate from the fcc field rep on the phone)

If the power company refuses to help you, tell them you want to see their "Broadcast license" to see if they can "transmit" radio interference. Once they know you know the law, they will help you! Or just say something like "If you cant fix it, I guess Ill have to get the FCC to do it!" They will come running!

Date: Mon, 1 Aug 1994 17:08:42 GMT
From: psinntp!sunsvr6!jdc@uunet.uu.net
Subject: 2m antenna on VW Golf/GTi, where?
To: ham-ant@ucsd.edu

In article <Ctnw4C.283@nntpa.cb.att.com>,
Andreas Meyer <ahm@hogpa.att.com> wrote:
>I own a 1985 Golf GTi and I've had a terrible time trying to find a spot
>on the car to mount an antenna for 2-meters. I'm currently using a
>Larsen mag-mount, but I'm getting tired of putting it on and taking it off.
>Also, I don't want to drill any holes!!!
> etc...
>
>Thanks,
>Andy

> ----- Andreas Meyer, N2FYE ahm@hogpa.att.com
> ----- AT&T Bell Laboratories, Holmdel NJ ..!att!hogpa!ahm

How about drilling through the roof in the dome light area? I don't know about Golf's, but my old Rabbit's dome light was in the middle of the roof, an ideal place for an antenna.

I just got done installing a Larsen 5/8 wave 2-meter antenna on our '92 Saturn, again drilling through the dome light. Running coax under the headliner wasn't too bad once the side trim was removed.

73...Jim N2VNO

Date: Sat, 30 Jul 94 20:28:05 EDT
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!news.ysu.edu!malgudi.oar.net!
hypnos!voxbox!jgrubs@network.ucsd.edu
Subject: Best HF mobile antenna??
To: ham-ant@ucsd.edu

Cecil_A_Moore@ccm.hf.intel.com writes:

> In article <F6y2Pc3w165w@jackatak.raider.net>,
> Jack GF Hill <root@jackatak.raider.net> wrote:
>
> >Forget "gain" as a consideration in mobile antennas... it does NOT
> >exist...
>
> Hi Jack, my S10 pickup is almost exactly a quarter-wave on 17m and I use
> a 13 ft. bumper mounted whip. By accident I discovered that I gain
> an extra 'S' unit when I point the front of the truck toward a station
> that previously was directly behind me. I modeled it using ELNEC and sure
> enough, it agreed with what I had experienced.

What you observed was 6 db. less loss... (Or whatever passes for an 'S' unit these days.)

+-----+
| Jim Grubs, W8GRT Voxbox Enterprises I _DO_ speak for Voxbox|
| jgrubs@voxbox.norden1.com 6817 Maplewood Ave. Enterprises. I own it. |
| Fido: 1:234/1.0 Sylvania, Ohio 43560 Home: 419/882-2697 |
| AMATEUR RADIO - The National Park of the Mind |
+-----+

Date: Sat, 30 Jul 1994 02:13:27 GMT

From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!swrinde!gatech!darwin.sura.net!
isdnl.in.mtsu.edu!perot.mtsu.edu!raider!theporch!jackatak!root@network.ucsd.edu

Subject: Best HF mobile antenna??

To: ham-ant@ucsd.edu

Cecil_A_Moore@ccm.hf.intel.com writes:

> In article <F6y2Pc3w165w@jackatak.raider.net>,

> Jack GF Hill <root@jackatak.raider.net> wrote:

> >However, the antenna requires getting out to change taps when moving

> >more than 6KHz of the frequency it is tuned for...

> Gosh Jack, it must be pretty hard "getting out to change the taps when
> moving..." :-)

Touche!!! Only after I saw your response did I see my gaff! Thanks for
returning the chuckle where I could enjoy it too! ;^)

Obviously (to me, anyway) I meant it was a pain to stop moving and
have to get out and move taps...

> One doesn't have to change taps if one uses a mobile antenna tuner.
I tried using one. However, the unit I tried had NO mechanism for a
bypass, and near resonance, it just swallowed signal... sure it would
work to flatten the shoulders of the SWR curve, BUT it did NOT, as you
allege it might, perform as well as I had hoped.

> When the SWR is less than 2/1 use the direct path through the tuner.
When I tried a tuner, it had NO bypass.

> You may lose a half a dB but you won't get wet.

That is NOT an insignificant improvement to operator comfort! ;^)

However, I must take issue...

> Your bug-catcher with a high SWR will radiate better than

> those low-Q, broad-band antennas with a low SWR!

...with the implication that the tuner solution would be even nearly
as good as the full bore resonant BugCatcher... it simply isn't so. I
suspect that the nature of the tuning, particularly coil location, and
the inductances involved "hide" some complex reactances that the tuner
simply masks...

I have used, and enjoyed VERY much, a "Texas Twister" (Henry Allen's
very excellent version of the Don Johnson, W6AQQ, DK-3 screwdriver
antenna.) The performance was excellent, though nowhere near as good
as the full-size BugCatcher. I traded the convenience of frequency
agility for the High-Q and performance of a tuned system. I am still
learning a great deal about these things, and would welcome anyone who
can and will enlighten me, but I hypothesize that the shortened nature
of a mobile antenna, and the tuning mechanisms involved in achieving a
workable match involve reactances and near fields which are "abnormal"
for antenna systems and tuners... Using a series of fairly good (65dB)

coax switches, I have tested antenna with tuner, antenna without tuner, antenna off resonance with tuner, and the antenna set to resonance without anything else was perceived by all stations in all locations as stronger in varying degrees... The test was run blind, as an A/B without a perceptable pause (Hey, if it works for an optometrist, it must work for an antenna-trist! ;^) and the results tabulated both with reported signal strengths, AND my received signal strength during the report.

I have read Maxwell, and think I understand his work, and I am not sure that my emperical findings are at conflict... has to do with the nature of a conjugate match... ;^)

73,

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657 -- all from the mobile! ;^)

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+-----+
| Jack GF Hill      |Voice: (615) 459-2636 -           Ham Call: W4PPT |
| P. O. Box 1685    |Modem: (615) 377-5980 -   Bicycling and SCUBA Diving |
| Brentwood, TN 37024|Fax: (615) 459-0038 -       Life Member - ARRL |
| root@jackatak.raider.net - "Plus ca change, plus c'est la meme chose" |
+-----+
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Date: 31 Jul 1994 06:23:04 GMT

From: ncar!asuvax!chnews!scorpion.ch.intel.com!cmoore@ames.arpa

Subject: Best HF mobile antenna??

To: ham-ant@ucsd.edu

In article <5189Pc1w165w@jackatak.raider.net>,

Jack GF Hill <root@jackatak.raider.net> wrote:

>Touche!!! Only after I saw your response did I see my gaff!

Wasn't really a gaff... I just chopped off your sentence at an opportune location. :-)

>However, I must take issue...

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>...with the implication that the tuner solution would be even nearly
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>as good as the full bore resonant BugCatcher... it simply isn't so.
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Didn't mean to imply that it was "as good as the full bore resonant BugCatcher". What I meant to say was that the BugCatcher with an antenna tuner is better than a Low-Q, broadband antenna without an antenna tuner under all conditions, even a high SWR.

Let's say you have your BugCatcher tuned for an SWR of 1/1 on 7.25 MHz and a broadband antenna is tuned for an SWR of 1/1 on 7.25. What I am

saying is that at a frequency where your BugCatcher has an SWR of 4/1 and the broadband antenna has an SWR of 1.5/1, the BugCatcher will radiate more RF with an antenna tuner than the broadband antenna will radiate without an antenna tuner... I think that was the original question.

See, I'm on your side. Even when a BugCatcher is handicapped by an antenna tuner, it is still better than the broadband antenna. After all, what is more broadband than a 50 ohm resistor? Lowering the Q in order to make an antenna broadband results in losses. I'm saying, don't lower the Q, use an antenna tuner to make your transmitter happy unless you want "to change the tap while moving...".

You can't beat the BugCatcher tuned to an SWR of 1/1. You also can't beat the BugCatcher with an SWR of 4/1... you just have to make your transmitter happy and one way is with an antenna tuner.

73, Cecil, KG7BK, 00TC (Not speaking for Intel)

Date: Mon, 1 Aug 94 16:33:27 -0500
From: news.delphi.com!usenet@uunet.uu.net
Subject: Comet CA-350DB
To: ham-ant@ucsd.edu

Has anybody had any luck getting this to work. It is a dual band 29 mhz and 52 mhz antenna. My friend has one and cant get it to radiate worth a darn. SWR curves are goofy too.
Thanks...Dave
NF8R@DELPHI.COM

Date: Mon, 1 Aug 94 16:30:49 -0500
From: news.delphi.com!usenet@uunet.uu.net
Subject: Hygain Hytower-2
To: ham-ant@ucsd.edu

While we are on this subject. Would somebody please give me a short technical description of how the Hytower works. I know it uses some sort of stub decoupling, But, how long are the stubs And is the part of tower above or below decoupled/radiating.
73...Dave
NF8R@DELPHI.COM

Date: Sun, 31 Jul 1994 04:18:11 GMT

From: netcomsv!netcom.com!netcom4!faunt@decwrl.dec.com
Subject: JPole fundamentals
To: ham-ant@ucsd.edu

OK, I think I've got the basics of "JPole" antennas. This is thrown out for correction and discussion, so please follow up.

A JPole is an 5/8 or 1/2 wave monopole antenna, with a 1/4 wave matching section. One leg of the antenna is 3/4 or 7/8 wave long, and the other is 1/4 wave, shorted at together at one end. The coax is connected enough above the shorted end to present the right impedance, and it doesn't seem to matter which side the shield and center conductor are connected. At least one version has the shield connected to the shorted end and the center conductor capacitively coupled to the longer section. There seems to be a belief that the 5/8 wave version gives more gain than the 1/2 wave version.

Ok, is this all true? Does anyone know if you really get more gain from the 5/8 wave?
73, doug

Date: Mon, 1 Aug 94 02:07:00 -0500
From: ihnp4.ucsd.edu!agate!iat.holonet.net!wwwswinc!barry.davis@network.ucsd.edu
Subject: New
To: ham-ant@ucsd.edu

VBARNET BBS is now carrying this conference.

--- Squish v1.01
* Origin: VBARNET * USA * (410)761-3406 or 922-8947 * PCB & OS/2 (1:261/1458)

Date: Sun, 31 Jul 1994 19:52:24 GMT
From: lll-winken.llnl.gov!overload.lbl.gov!agate!iat.holonet.net!vectorbd!jp11@ames.arpa
Subject: Q:SW car antenna?
To: ham-ant@ucsd.edu

Brad (bradb@netcom.com) wrote:
: I'd appreciate any suggestions on what to do for a *removable* form of
: shortwave antenna to use while in the car. I'd like to listen to my Sony
: SW100 while on LONG trips through the middle of more or less barren AM
: radio land.

— —

Vector Board BBS
716-544-1863/2645
GEnie: ZKD

Hi,

My question is two-fold:

amd

MAP:

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Powerlines
  |
  \ /
+++++                                     <- Powerline
                                     +
                                     +
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      -----

```


ME
+
+
+
+
+
+
+ <- Powerline

Thanks!
Jose

Date: Mon, 01 Aug 1994 07:23:51 -0400
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!usc!elroy.jpl.nasa.gov!wp-sp.nba.trw.com!gatekeeper.esl.com!m21003.esl.com!user@network.ucsd.edu
Subject: Trade hf 5 band verticle 4 yaesu ft11r
To: ham-ant@ucsd.edu

Hi all, i have a new (unopened) maldol vk5jr 5 band verticle antenna, that covers 10/15/20/40/80 mtrs. approx 20' with trap radials for limited space installations. specs avail via fax. would like to trade for a yaesu ft11r 2mtr ht. any takers??? i'll ship ups u do the same. e-mail reply to doug_huston@smtp.esl.com or call 408-738-2888 x5825 73's Doug kc6fry

--

"No man can be condemned for owning a dog. As long as he has a dog, he has a friend; and the poorer he gets the better friend he has." Will Rogers...

Comments are mine, not related to ESL.

Date: Sat, 30 Jul 1994 02:51:28 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!swrinde!gatech!darwin.sura.net!isdnl.in.mtsu.edu!perot.mtsu.edu!raider!theporch!jackatak!root@network.ucsd.edu
Subject: What coax feed to use for 2m antenna
To: ham-ant@ucsd.edu

cropley@cbnewsf.cb.att.com (andrew peter.cropley) writes:

> Have you ever tried 9880? We had lots of this stuff laying around from
> an old ethernet network.

The cable itself is quite good for lower power applications (ethernet is NOT a kilowatt kinda deal! ;^) *AND* the jacket is *NOT* Ultraviolet resistant... The regular coaxial cables for outside use have U/V resistant jackets that hold up, for a while, to U/V...

73,

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657 -- all from the mobile! ;^)

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+-----+
| Jack GF Hill          |Voice: (615) 459-2636 -           Ham Call: W4PPT |
| P. O. Box 1685        |Modem: (615) 377-5980 -   Bicycling and SCUBA Diving |
| Brentwood, TN 37024  |Fax:   (615) 459-0038 -           Life Member - ARRL |
| root@jackatak.raider.net - "Plus ca change, plus c'est la meme chose" |
+-----+
```

Date: Sat, 30 Jul 1994 02:41:47 GMT

From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!swrinde!gatech!darwin.sura.net!

```
isdnlm.mtsu.edu!perot.mtsu.edu!raider!theporch!jackatak!root@network.ucsd.edu
```

Subject: What coax feed to use for 2m antenna

To: ham-ant@ucsd.edu

vinod@watson.ibm.com (Vinod Narayanan) writes:

```
> I want to put up the right coax-line for the feed
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> just once, and connect the antenna using connectors. So,

 \succ

> 1. What type of coax should I put up?

The best you can afford... 9913 would be good, but there are very good coax available for less money... with lower performance and higher attenuation.

> 2. What type of connectors should I use at the antenna end for

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> coupling the long feedline with the (short) connecting coax from
```

> the antenna?

Well, several may jump up and yell about there being no difference between a PL-259 and "N" connector performance, the major difference being price.

There is a grain of truth to that, *BUT*

- 1) "N" connectors are weatherproof, the strongest recommendation I can think of...
- 2) "N" connectors are *far* easier to assemble and install, the major requirement being how well you measure! Gets my vote!
- 3) PL-259 connector, *PROPERLY INSTALLED* are the equal of the "N" well into the gigahertz region -- Al, N1AL ran some tests on some "upscale" Hewlett-Packard gear and confirmed this a year ago...
- 4) Not many can PROPERLY install a PL-259, which furthers the myth of their poor performance, and really makes weather a problem.

I wouldn't use the "N" because of attenuation/loss, but I'd spend the

